

4. REVISED PAGES TO THE DRAFT EIR/EIS

In accordance with section 15132 of the State CEQA Guidelines and the NEPA Regulations (40 CFR section 1503.4), this section presents the insignificant modifications that are made to the Draft EIR/EIS to clarify or amplify its text in response to comments. Such changes are therefore consistent with the provisions of section 15088.5(b) of the State CEQA Guidelines. Deletions to text are shown by strike-through and additions to text are shown by underline.

EXECUTIVE SUMMARY

The first paragraph of the Executive Summary (page ES-1) has been modified to indicate that the NSF is a cooperating agency for the Project:

The California State Lands Commission (CSLC) and the Monterey Bay National Marine Sanctuary (MBNMS) have prepared this draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Monterey Accelerated Research System (MARS) Cabled Observatory (the Project) proposed by the Monterey Bay Aquarium Research Institute (MBARI). The National Science Foundation (NSF), which approves funding for the Project, is a cooperating agency. The purpose of this EIR/EIS is to inform the public, permitting agencies, and other decision-makers about the potential environmental impacts of the proposed Project.

SECTION 1: INTRODUCTION

The first paragraph of Section 1 (page 1-1) has been modified to indicate that the NSF is a cooperating agency for the proposed Project:

This Draft Environmental Impact Report and Environmental Impact Statement (EIR/EIS) has been prepared to analyze and disclose potentially significant environmental effects associated with the installation and operation of the Monterey Bay Aquarium Research Institute (MBARI) proposed Monterey Accelerated Research System (MARS) Cabled Observatory Project (Project). This Draft EIR/EIS provides the primary source of environmental information for the lead, responsible, cooperating, and trustee agencies to consider when exercising any permitting or approval authority related to implementation of the proposed Project. The California Environmental Quality Act (CEQA) lead agency for this Project is the California State Lands Commission (CSLC) and the Monterey Bay National Marine Sanctuary (MBNMS) is the National Environmental Policy Act (NEPA) lead agency. The National Science Foundation (NSF), which approves funding for the Project, is a cooperating agency.

1.2 PURPOSE AND SCOPE OF THE EIR/EIS

The second paragraph of Section 1.2 (page 1-8) has been modified to reflect the fact that the NSF is a cooperating agency for the Project:

The EIR/EIS is also intended to inform decision-makers and the general public of the potential significant environmental impacts of the Project. The EIR/EIS also identifies possible ways to reduce or avoid significant impacts through mitigation measures and describes and analyzes feasible alternatives to the Project. ~~Both The CSLC, and the MBNMS, and NSF~~ will consider the information in this EIR/EIS, along with other information, before making any decision to consider the implementation of the Project.

Section 1.4 has been expanded to include discussion of additional federal regulations, as well as to provide additional information on the California Coastal Act. The title and introduction of Section 1.4 on page 1-11 have been updated to reflect the expanded scope of this section.

1.4 CONSISTENCY WITH FEDERAL, STATE, REGIONAL, AND LOCAL PLANS AND REGULATIONS

This section discusses the consistency of the Project with relevant plans and policies of various federal, local and regional government agencies. Plans and policies that are applicable to the Project are presented below, and Table 1-1 provides an analysis of the Project's consistency with these plans and policies.

1.4.3 North County Local Coastal Program (LCP) Land Use Plan (Monterey County Board of Supervisors, June 1982, Updated March 1997)

The North County LCP was created in response to the Coastal Act of 1976, which established a framework for resolving conflicts among competing uses for limited coastal lands. The North County Land Use Plan LCP supercedes previous plans within the coastal zone, including the 1973 Moss Landing Area Development Plan. An updated community plan for Moss Landing is included in the LCP.

Pursuant to the North County Land Use Plan LCP (a.k.a. Monterey County LCP), which was certified by the California Coastal Commission (CCC), project activities located in the coastal zone landward of the mean high tide line would require a coastal development permit (CDP) from Monterey County. The CCC retains permitting authority over development occurring seaward of the mean high tide line (State Tidelands), as discussed in Section 1.4.6.

1.4.6 Coastal Act

Section 1.4.6 has been expanded to provide additional information on the California Coastal Act. The following paragraph follows the last paragraph of Section 1.4.6 on page 1-13.

Section 30600 of the Act requires any person wishing to perform development in the coastal zone to obtain a coastal development permit (CDP). The Coastal Commission retains CDP jurisdiction over tidelands, submerged lands, public trust lands, and lands within 100 feet of any wetland, estuary, or stream (PRC §30601[2]). Other areas of the project site located within the coastal zone are subject to the CDP authority of Monterey County, pursuant to the County's certified Local Coastal Program (LCP) (see Section 1.4.3). Therefore, the Project requires a CDP from the Coastal Commission for Project activities located seaward of the mean high tide line and within 100 feet of a wetland, as well as a CDP from Monterey County for Project activities located in the coastal zone landward of the mean high tide line.

The following sections have been added following Section 1.4.8 on page 1-15, before Table 1-1, to provide descriptions of additional applicable federal regulations.

1.4.9 Clean Water Act of 1977 (Title 33, U.S. Code, Section 1251 et seq.)

The Federal Water Pollution Control Act and subsequent amendments, collectively known as the Clean Water Act (CWA), provides for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 404(b) of the Act prohibits the discharge of dredged or fill materials into the waters of the United States, including wetlands, except as permitted under separate regulations by the U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency. Section 401 of the Clean Water Act requires federal agencies to obtain state water quality certification from the local Regional Water Quality Control Board (RWQCB) for any federal project, or federally permitted project, potentially affecting water quality. In this case, the state water quality certification would be obtained from the Central Coast RWQCB. Section 402 establishes conditions and permitting for point-source discharges of pollutants under the National Pollution Discharge Elimination System (NPDES). Pursuant to NPDES requirements, a General Construction Activity Permit is required for construction and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared in order to obtain the NPDES permit.

1 **1.4.10 River and Harbors Act of 1899 (Title 33, U.S. Code, Section 403)**

2 The Rivers and Harbors Act (RHA) addresses projects and activities in navigable waters
3 and harbor and river improvements. Section 10 of this Act prohibits the unauthorized
4 obstruction or alteration of any navigable water of the United States. Permits are
5 required from the Corps for construction of any structure in or over any navigable water
6 of the United States, or the accomplishment of any other work affecting the course,
7 location, condition, or physical capacity of such waters. Because the Project is in an
8 area bisected by a navigation opening under the jurisdiction of the U.S. Coast Guard,
9 Section 10 of the RHA would apply to the Project.

10 **1.4.11 Coastal Zone Management Act of 1972 (Title 16, U.S. Code, Sections 1451-**
11 **1464)**

12 As a federal agency, the MBNMS is responsible for ensuring project compliance with
13 the Coastal Zone Management Act (CZMA). Section 307 of the Act (Title 16, U.S.
14 Code Section 1456(c)) states that federal actions must be consistent with approved
15 State coastal management programs to the maximum extent practicable. California's
16 coastal management program was implemented by the California Coastal Act of 1976
17 (see above). This Act is the State's approved coastal management program applicable
18 to the proposed Project. To document the degree of consistency with the State
19 program, CZMA requires the preparation of a Consistency Determination (CD)
20 whenever a project may directly affect the coastal zone. Because the proposed Project
21 requires a permit from the Corps, a consistency determination must be obtained from
22 the California Coastal Commission pursuant to Section 1456(c)(3)(A) of the CZMA.

23 **1.4.12 Endangered Species Act of 1973 (Title 16, U.S. Code, Section 1531 et seq.**
24 **and Title 50, Code of Federal Regulations, Part 17.1 et seq.)**

25 The Endangered Species Act (ESA) protects threatened and endangered plants and
26 animals, and their critical habitat. The administering agency is the U.S. Fish and
27 Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Under
28 Section 7, the MBNMS, as a federal agency, is required to consult with the USFWS and
29 the NMFS on actions involving listed species. The USFWS and/or the NMFS conduct
30 an internal consultation regarding the effects of any proposed action. A Section 7
31 consultation is initiated when a federal agency presents a biological assessment that
32 examines the potential effects of a specified action on a species. It is concluded when
33 the USFWS and/or NMFS issues a written statement that pronounces whether the
34 action would jeopardize a listed or proposed species, or adversely affect critical habitat.
35 If the species is not in jeopardy, the written statement will include authorization for

1 incidental take. If a species is in jeopardy, mitigation and minimization actions will be
 2 included in the written statement.

3 **1.4.13 Marine Mammal Protection Act of 1972 (Title 16, U.S. Code, Section 1361 et**
 4 **seq.)**

5 Under the Marine Mammal Protection Act, the Secretary of Commerce is responsible for
 6 the protection of all cetaceans and pinnipeds and has delegated this authority to the
 7 NMFS. The Secretary of Interior is responsible for sea otters and has delegated this
 8 authority to the USFWS. The Marine Mammal Protection Act established a moratorium
 9 on the taking of marine mammals in waters under U.S. jurisdiction. The moratorium
 10 may be waived when the affected species or population stock is within its optimum
 11 sustainable population range and would not be disadvantaged by the authorized taking.
 12 The Act directs the Secretary, upon request, to authorize the unintentional taking of
 13 small numbers of marine mammals incidental to activities other than commercial fishing
 14 when, after notice and opportunity for public comment, the Secretary finds that the total
 15 of such taking during a five-year (or shorter) period would have a negligible impact on
 16 the affected species. In 1994, a new subparagraph (D) was added to Section 101(a)(5)
 17 to simplify the process of obtaining “small take” exemptions when unintentional taking is
 18 by incidental harassment only. Specifically, the incidental take of small numbers of
 19 marine mammals by harassment can now be authorized for periods of up to one year
 20 without rulemaking, as required by Section 101(a)(5)(A), which remains in effect for
 21 other authorized types of incidental taking.

22 **1.4.14 Magnuson-Stevens Fishery Conservation and Management Act of 1976**
 23 **(Public Law 94-265)**

24 Recognizing the importance of fish habitat to the productivity and sustainability of U.S.
 25 marine fisheries, in 1996 Congress added new habitat conservation provisions to the
 26 Magnuson-Stevens Fishery Conservation and Management Act, which governs U.S.
 27 marine fisheries management. The amended Act mandates the identification of
 28 Essential Fish Habitat (EFH) for managed species as well as measures to conserve and
 29 enhance the habitat necessary to fish to carry out their life cycles. The Magnuson-
 30 Stevens Act requires cooperation among NMFS, the Fishery Management Councils,
 31 fishing participants, federal and state agencies, and others in achieving EFH protection,
 32 conservation, and enhancement. In Section 303(a)(7) of the amended Magnuson-
 33 Stevens Act, Congress directs the NMFS and the eight regional Fishery Management
 34 Councils, under the authority of the Secretary of Commerce, to: describe EFH and
 35 identify EFH in each fishery management plan; minimize to the extent practicable the
 36 adverse effects of fishing on EFH; and identify other actions to encourage the
 37 conservation and enhancement of EFH. In Section 305 (b)(2) of the amended Act,

1 Congress directs each federal agency to consult with the Secretary with respect to any
2 action authorized, funded, or undertaken, or proposed to be authorized, funded, or
3 undertaken, by such agency that may adversely affect any essential fish habitat
4 identified under the Magnuson-Stevens Act.

5 The Pacific Fishery Management Council and the National Marine Fisheries Service
6 have been engaged in a multi-year process to identify and protect Essential Fish Habitat
7 for groundfish as required by the 1996 amendments to the Magnuson-Stevens Act. At
8 the time of this Draft EIR/EIS, the Council has selected preferred actions pursuant to
9 this requirement which may have bearing on this Project. The “Monterey Canyon” has
10 been proposed as Essential Fish Habitat for groundfish and a prohibition on trawling in
11 this region has been identified as a preferred action. The exact boundaries of the
12 “Monterey Canyon” have yet to be resolved and it is not yet clear how much of the
13 proposed cable route will fall within the closure. A final rule implementing the closure of
14 “Monterey Canyon” would be published in the Federal Register in May of 2006. Like all
15 administrative closures, such an action could be subject to future review should new
16 information become available; however, it will have an indefinite life span when
17 implemented. This closure is not a factor considered in any analysis in this document;
18 however, it is worth noting that the regulatory environment is dynamic.

19 **1.4.15 National Historic Preservation Act of 1966 (Title 16, U.S. Code Section 470**
20 **et seq.)**

21 Section 106 (16 USC 470f) of the National Historic Preservation Act (NHPA), as
22 amended, requires federal agencies to take into account the effects of their
23 undertakings on historic properties that are listed in or potentially listed in the National
24 Register of Historic Places, and afford the State Historic Preservation Office a
25 reasonable opportunity to comment. The historic preservation review process
26 mandated by Section 106 is outlined in regulations issued by the Advisory Council on
27 Historic Preservation. The analysis contained in Section 4.3 of this Draft EIR/EIS is
28 intended to provide documentation for the Section 106 consultation process.

29 *Table 1-1 on page 1-15 has been updated to provide clarification on the California*
30 *Coastal Act and include the federal regulations added to Section 1.4.*

1 Table 1-1. Consistency with Applicable Plans and Policies

Responsible Agency	Plan or Policy	Project Consistent?	Method of Consistency
County of Monterey	Monterey County General Plan (1982)	Yes	The Natural Resources Chapter of the General Plan contains Vegetation and Wildlife Habitat Policies applicable to the Project. To be consistent with the Vegetation and Wildlife Habitat Policies 9.2.1 and 9.2.2 of the Plan, the Project would need to monitor activities that would potentially create siltation and pollution in marine waters, as well as consult with appropriate agencies and obtain applicable permits. This includes consultation with CDFG, as required by Ocean Resources Policy 10.1.1. As designed and through acquisition of required permits, the Project would be consistent with these policies.
County of Monterey	North County Area Plan (1985)	Yes	The Plan lists policies that are supplemental to the Monterey County General Plan and are specific to the characteristics of the North County Area. The Project would not harm environmentally sensitive areas as defined by the Plan and, therefore, would be consistent with the Plan.
County of Monterey	North County LCP Land Use Plan (1982)	Yes	The Plan is intended to protect the overall quality of the Coastal Zone environment and to maximize public access to the coastal areas. Consistency with this would be achieved through consultation with appropriate local agencies and by obtaining applicable local permits. <u>a CDP from Monterey County for Project activities located in the coastal zone landward of the mean high tide line.</u>
County of Monterey	Monterey County Coastal Implementation Plan (1987)	Yes	The Plan establishes regulations for development along the coastal zone that fully implement the policies of the North County LCP Land Use Plan. Consistency with this would be achieved through consultation with appropriate local agencies and by obtaining applicable local permits.

Responsible Agency	Plan or Policy	Project Consistent?	Method of Consistency
Monterey Bay Unified Air Pollution Control District	Draft 2004 Air Quality Management Plan	Yes	Short-term construction emissions would be consistent with regional, State, and federal air quality requirements and accommodated within the plan for attaining ambient air quality standards. No notable emissions would occur during long term operation.
California Coastal Commission (CCC)	California Coastal Act (1976)	Yes, with CDP approval	Project consistency with the Coastal Act <u>requires a CDP from the CCC for Project activities located seaward of the mean high tide line and within 100 feet of a wetland.</u> and the North County LCP will need to be established in order for the County to issue a CDP. At this time, no inconsistencies have been identified.
Moss Landing Harbor District	Moss Landing Harbor District Submerged Land Grant	Yes, with Harbor District permit approval	After review of the Harbor District's land grant and discussions with District staff, no conflicts with the land grant have been identified.
MBNMS	National Marine Sanctuary Program (Title 15, Part 922 CFR)	Yes, with MBNMS permit approval	NMSP regulations prohibit certain activities that would harm or put at risk the Sanctuary or its resources. Various otherwise prohibited activities in the MBNMS may be permitted by the NMSP. The Applicant has applied for a permit under Sections 922.133 and 922.48 of the Program regulations.
<u>Central Coast RWQCB</u>	<u>Clean Water Act (1977)</u>	<u>Yes, with Central Coast RWQCB approval</u>	<u>The Clean Water Act requires water quality certification from the Central Coast RWQCB, a General Construction Activity Storm Water Permit, and a SWPPP. The Applicant has applied for these permits.</u>
<u>U.S. Army Corps of Engineers</u>	<u>River and Harbors Act (1899)</u>	<u>Yes, with Corps permit approval</u>	<u>The Project would require Section 10 permit from the Corps. The Applicant has applied for this permit.</u>
<u>CCC</u>	<u>Coastal Zone Management Act</u>	<u>Yes, with receipt of CD from CCC</u>	<u>The Act requires the preparation of a CD whenever a project may directly affect the coastal zone. Because the Project requires a permit from the Corps, a CD must be obtained from the CCC pursuant to Section 1456(c)(3)(A) of the Act.</u>

Responsible Agency	Plan or Policy	Project Consistent?	Method of Consistency
<u>USFWS and NOAA/NMFS</u>	<u>Endangered Species Act (1973)</u>	<u>Yes, through Section 7 consultation</u>	<u>Consultation pursuant to Section 7 of the Endangered Species Act is required. The USFWS and/or the NMFS will issue a written statement that pronounces whether or not the action would jeopardize a listed or proposed species, or adversely affect critical habitat. No significant adverse impacts on listed species have been identified in this EIS/EIR.</u>
<u>USFWS and NOAA/NMFS</u>	<u>Marine Mammal Protection Act (1972)</u>	<u>Yes</u>	<u>In accordance with the Act, the Draft EIR/EIS includes discussion of potential impacts on marine mammals and measures have been incorporated to avoid taking of a marine mammal. Comments on the Project have been requested from USFWS and NMFS.</u>
<u>NOAA/NMFS</u>	<u>Magnuson-Stevens Fishery Conservation and Management Act (1976)</u>	<u>Yes</u>	<u>An Essential Fish Habitat assessment is presented in Appendix D.1 of the Draft EIR/EIS.</u>
<u>State Historic Preservation Officer</u>	<u>National Historic Preservation Act of 1966</u>	<u>Yes, with SHPO consultation</u>	<u>The MBNMS has provided the State Historic Preservation Officer (SHPO) an opportunity to comment on the Project. Compliance with the Act will be achieved through consultation with SHPO prior to permit approval.</u>

1

2 **SECTION 2: PROJECT DESCRIPTION**3 *The following changes have been made to Section 2 (Project Description).*4 *Page 2-6, Line 30-32:*

5 Based on the location of the cable along the proposed route, ~~three~~ two different
6 armoring types would be used. These would consist of single armor (SA) and single
7 armor light (SAL). ~~and lightweight protected (LWP).~~

8 *Page 2-9, Line 34:*

9 The ~~node~~ trawl resistant frame measures 14.8 feet (4.5 m) long, 11.7 feet (3.6 m) wide,
10 and 4.2 feet (1.3 m) high.

1 *Page 2-10, Lines 1-4:*

2 The node would have eight separate science ports (~~docking stations~~) for oceanographic
3 instruments (Figures 2.1-7 and 2.1-8).

4 *Page 2-10, Line 4-9:*

5 Each port would support bi-directional data transfers of up to 1 Gbit per second from the
6 node to the shore (data from all 8 science ports), but only 100 Mb/sec from each
7 science port to the science instruments placed on an individual science port, and the
8 capability to support a variety of scientific instrumentation arrayed within 2.5 miles (4
9 km) of the node.

10 *Figure 2.1-9 on page 2-13 has been updated to show that the fiber would run through*
11 *conduit on an existing Applicant-owned fence, rather than running along existing power*
12 *poles.*

13 *Section 2.2.2 on Page 2-18, Line 14-15 has been edited for clarification:*

14 Additional armoring of the cable, consisting of single armor light cable sheathing, would
15 be installed in these areas to protect the cable. The Applicant does not propose to use
16 double-armor cable. Double-armor cable is used in high-energy environments with high
17 abrasion risk at depths less than 328 feet (100 m). The depths and pressures that
18 occur on the proposed cable route at the neck leading to Smooth Ridge, where the
19 cable would not be buried, are at or beyond the upper design limit for double-armor
20 cable. In addition, the Applicant is not proposing to armor the cable with rock, protective
21 mattresses, or any other type of surface laid protective structure.

22 *Section 2.2.5 on Page 2-20, Line 26-27 has been edited for clarification:*

- 23 • Burial and inspection of any unburied sections of the cable remaining from the
24 node deployment operation and in the near shore area where the cable joins the
25 HDD-installed pipe.

1 Placeholder for Figure 2.1-9 11x17 COLOR (takes 2-pages) Page 1

1 Placeholder for Figure 2.1-9 11x17 COLOR (takes 2 pages) Page 2

The following Applicant commitments have been added to Section 2.4 on page 2-28:

- Prior to initiating cable laying and HDD operations, a Marine Mammal Monitoring Plan will be prepared describing the protocols for marine mammal observations during cable installation and removal activities. The Plan will be submitted to the CSLC and MBNMS and other applicable agencies listed in Table 1-1, above, for approval prior to initiation of cable installation.
- If fishing gear were entangled with the cable, the Applicant would, within three days, attempt to attach a recovery line to the snagged gear using its remotely operated vehicles (ROVs). If the ROVs are unsuccessful, the location would be marked with a buoy to allow a vessel with a winch to recover as much of the gear as possible for disposal. The timing of actual recovery by vessel would depend on the schedule of the Applicant's two winch-equipped vessels, the Western Flyer and Point Sur. Recovery would be accomplished within one month. If fishing gear were entangled with the cable in such a way that that there was a probability of significant damage to the cable if a recovery were attempted, and all efforts to disentangle the cable failed, the fishing gear would be left in place, but rendered incapable of continuing to harvest marine resources.
- The Applicant will coordinate cable laying activities with the U.S. Coast Guard regarding publication of a notice in the U.S. Coast Guard's Local Notice to Mariners.

The following text in the second bullet in Section 2.4, page 2-26, lines 12-13, has been edited for clarification:

- In areas where cable burial is not possible, additional cable armoring consisting of single armor light cable sheathing will be used and fishers will be notified of locations of exposed cables.

The following paragraph addressing cable repair has been added in Section 2.5.2, page 2-30, between the first and second paragraph:

The use of a grapnel would only be required to locate a potential fault in buried sections of the route. It is important to note that the likely need for a repair along the buried section of the cable is very low. A break or other damage along the buried section might be caused by an earthquake, landslide, or perhaps a ship anchor, but is unlikely to be caused by a fishing trawler due to the depth of the cable burial. A trawler might damage an unburied section of cable, but location and repair of damage on an unburied

section of cable would not require use of a grapnel. For repairs to unburied sections of the cable the Applicant would utilize an ROV to locate the fault and attach a line to the existing cable. The cable would then be brought on board the repairs vessel for diagnostic evaluation and repairs.

The following text has been added to the end of Section 2.6 on page 2-32:

The CSLC lease terms state that upon expiration or earlier termination of a lease, the CSLC, at its discretion, may take title to any or all improvements, or require that all or any portion of the cable be removed. The CSLC would conduct the appropriate environmental review prior to removing any or all improvements in State waters, and all permits or other governmental approvals will have to be obtained. Although a new permit and environmental impact analysis would be required in the event of future cable removal activities the potential impacts associated with the removal of the cable have, in general, been addressed in the Draft EIR/EIS.

Section 2.7 on page 2-33, Line 1-2, has been edited for clarification:

...for all required permits and approvals needed to construct, operate, and maintain, ~~and remove~~ the Project.

Table 2.7-1 has been modified to indicate that the NSF has funding approval authority over the Project. Additionally, the proposed Project and Alternative Landing Area Routes occur landward of the mean high tide line and would therefore require Coastal Development Permit approval from Monterey County.

Table 2.7-1. Required Permits and Approvals

Agency	Permit/Authorization/Consultation
Federal	
<u>National Science Foundation (NSF)</u>	<u>Major Research Equipment funding</u>
Regional/Local	
<u>County of Monterey</u>	<u>Coastal Development Permit (for the onshore component of the Project)</u>

SECTION 4: ENVIRONMENTAL ANALYSIS

The following text has been changed to page 4-2, lines 7-8, for clarification:

Therefore, no long-term ~~interference with~~ preclusion activities of commercial or recreational fishing ~~operators~~ activities in the project area would occur.

Information on other dredge disposal projects and the ATOC/Pioneer Seamount Cable have been added to Table 4-1 on page 4-9 as a potentially related projects.

Table 4-1. Summary of Related Projects

Name	Type	Description	Location	Status
<u>Other disposal projects</u>	<u>Dredge disposal activities</u>	<u>Dredge disposal occurs at multiple sites in Monterey Bay, including sub-tidal and beach replenishment locations.</u>	<u>Santa Cruz Harbor, Monterey Harbor, Moss Landing</u>	<u>Material is disposed at some sites regularly and others rarely. See descriptions in the text at the end of this section.</u>
<u>Acoustic Thermometry of Ocean Climate (ATOC)/Pioneer Seamount Cable</u>	<u>Scientific research</u>	<u>A 95-km cable installed off Half Moon Bay, CA, in 1995. The cable was used for acoustic tomography purposes.</u>	<u>California coast off of Half Moon Bay, about 45 miles northwest of the proposed MARS cable.</u>	<u>The cable has not transmitted data since a break in September 2002.</u>

The reader should note that an application for the Borehole Observatories project was filed in February 2005 after the Draft EIR/EIS was prepared. The following text has been added to the end of the discussion under "Installation of Borehole Observatories in Monterey Bay" on page 4-10 to clarify the status of the Borehole project:

As of the printing of this Draft EIR/EIS, an application for the project had not been filed with MBNMS. The cumulative impact analysis in this Draft EIR/EIS was based on available preliminary information since the application had not been filed. Explicit information about construction/boring techniques, precise number of test holes, and other project description data was not available. The project will be subject to a separate detailed environmental analysis, as required by NEPA, after the application is filed and MBNMS finds that it is complete for processing.

The following text has been added to page 4-13 as a new subsection after "SF-12 Dredge Disposal Site Operations."

1 **Other Disposal Projects**

2 In addition to the SF-12 Dredge Disposal Site, there are several other existing disposal
3 sites in MBNMS. Both Santa Cruz and Monterey Harbors have dredge disposal sites,
4 which were in use prior to MBNMS designation and are recognized by the Sanctuary.
5 Also, the Sanctuary recognizes a disposal site west of Moss Landing (Site SF-14),
6 which is a sub-tidal disposal site for fine-grained material. None of these disposal areas
7 are in the vicinity of the proposed cable Project and would not contribute to cumulative
8 effects of the proposed Project.

9 Three other disposal sites are located near Moss Landing: two beach replenishment
10 sites that are north of the harbor mouth have been rarely, if at all, used; and one beach
11 replenishment/subtidal disposal site that is on the south side of the harbor outside the
12 Sanctuary boundaries. The very limited use of these sites, coupled with the fact that the
13 proposed cable installation will be directionally drilled under this area (rather than
14 trenched through it) indicates that they will not contribute to cumulative effects.

15 In the past, there has been limited disposal of highway landslide materials by Caltrans
16 in the Big Sur area. However, no disposal has occurred in the past three to four years.
17 Even if disposal did occur during the time of the proposed Project installation, this
18 disposal area is not within or near the project study area. There is no potential for
19 landslide disposal to interact with the proposed Project or contribute substantially to
20 cumulative effects.

21 *A description of the ATOC/Pioneer Seamount Cable has been added to the end of this*
22 *section on page 4-13.*

23 **Acoustic Thermometry of Ocean Climate (ATOC)/Pioneer Seamount Cable**

24 The 95-km ATOC/Pioneer Seamount Cable was installed off the California coast near
25 Half Moon Bay in 1995 to connect an acoustic projector and hydrophone on Pioneer
26 Seamount to shore for performing acoustic tomography in the North Pacific. Acoustic
27 tomography is a tool used to study average temperatures over large regions of the
28 ocean. By measuring the time it takes sound to travel between known source and
29 receiver locations, sound speed can be determined. Changes in sound speed can then
30 be related to changes in temperature. The cable is located partially within the MBNMS.
31 It was laid directly on the seafloor and was not buried. The cable experienced two
32 breaks since its installation. Since the second break in September 2002, the cable has
33 not transmitted data and is currently inoperable. Development of a cable removal plan
34 is required by December 31, 2005, and actual removal of the cable is required by

January 2007. The ATOC/Pioneer Seamount Cable is located between 45 and 50 miles northwest of the proposed MARS cable.

Section 4.1: Air Quality

Page 4.1-3, line 12, has been revised to read:

...after meeting the standard in 1994 1990.

Table 4.1-3 on page 4.1-3 has been revised to read:

“State Designation: Ozone, Nonattainment-Transitional” and “State Designation: PM_{2.5}, Attainment”.

The second bullet of the significance criteria on page 4.1-5, line 29, has been revised to read:

Project emissions exceed thresholds established by the MBUAPCD for the determination of significance of air quality impacts for CEQA purposes or the applicability thresholds of the Federal General Conformity Rule. The MBUAPCD considers an impact significant if it would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of any criteria pollutant for which the region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

The note below Table 4.1-4 on p. 4.1-7, line 19, has been revised to read:

...established by Section 5.3 ~~and 5.4~~ of the local CEQA Air Quality Guidelines (MBUAPCD 2004) and consultation with MBUAPCD staff (Brennan 2004).

Mitigation Measure AQ-1b, on page 4.1-8, line 27, has been revised to read:

...The amount of the contribution shall be agreed upon by the MBUAPCD taking into account the limited duration and timing of cable-laying activities.

Page 4.1-10, lines 17 to 20, has been revised as follows:

Because the Project emissions alone, including short-term emissions from marine vessels that are not accommodated in MBUAPCD's 2004 Air Quality Management Plan, would contribute substantially to existing violations during the short-term construction

1 phase, the short-term impact (Impact AQ-1) would also be cumulatively considerable
2 (Class II) and mitigation measures (MM AQ-1a and MM AQ-1b) would be necessary to
3 reduce the impact to a less than significant level.

4 **Section 4.2: Commercial and Recreational Fisheries**

5 *Page 4.2-13, lines 15 to 17, have been revised to read:*

6 ...commonly referenced as ~~Fishermen's Agreements~~ a mechanism to provide
7 necessary reimbursement provisions, have been incorporated into the considerations
8 and approvals of previous commercial fiber optic cable projects and such agreements
9 have provided a model for the aforementioned discussions.

10 *Page 4.2-14, line 27, has been revised to read:*

11 ...extensive ~~data base~~ database compiled over a period of three decades.

12 *The following additions and revisions have been incorporated into the discussion of*
13 *Impact CRF-2 on page 4.2-16, beginning on line 1:*

14 A study of an unburied cable (ATOC) off the west Coast of California (Kogan et al.
15 2003) indicates that some interactions between fishing gear (trawling) and unburied
16 cables have likely occurred. The ATOC cable is a 95-km long acoustic cable that was
17 installed in 1995 to transmit data from a passive, acoustic hydrophone array. ROV
18 surveys in 2003 suggest snagging of the cable may have occurred at least three times
19 since installation, although no gear has been observed entangled on the cable and no
20 formal reports have been made by the fishing community. As a general indication of the
21 potential for interactions between fishing gear and the ATOC cable, commercial trawl
22 information (trawl track data) indicates that 1,867 trawls were conducted in the cable
23 region between 1997 and 2003, with the highest number occurring in 1997 (471) and
24 the fewest in 2001 (139) (CDFG unpublished data).

25 In comparison to the ATOC data, a total of 2,475 trawls occurred over the proposed
26 MARS cable route during the same time period (CDFG unpublished data). However,
27 considering only the unburied segments of the MARS cable (~12 km), a total of 726
28 trawls were conducted in this area, with the greatest number occurring in 1998 (218)
29 and the fewest in 2003 (52). If these data are standardized to the number of trawls per
30 kilometer of cable (trawling intensity), more trawls were conducted over the MARS
31 unburied section of cable (range: 4.3-18.2 trawls/km) than the ATOC cable (range: 1.5-
32 5.0 trawls/km). Thus, there appears to be a greater potential for fishing gear and cable
33 interactions along the MARS route, compared to the ATOC route, although actual

conflicts would remain less than significant if the ATOC results are not or are only partly representative of interactions.

Of the two analyses described above, greater reliance on the documentation presented on page 4.2-14 of the Draft EIR/EIS is warranted because it is based on over four years of actual operating experience of a cable system that is comparable to the proposed Project, e.g., installation methodologies, situated in an area historically fished by trawlers, and comprising both buried and unburied portions. Therefore, potential impacts from potential snagging of the MARS cable by fishing gear remains adverse (Class III), but not significant because the potential impact remains below the Significance Criteria within Section 4.2 of the Draft EIR/EIS. See also response 5-3 in this regard.

Even though the potential for snagging the unburied MARS cable is considered not significant in “trawlable” areas (e.g., soft substrate and low relief cobble), although commercial fishermen still may choose not to fish in the cable vicinity out of due to concerns about potential snags and gear damage. However, in contrast, some trawlers may decide to fish in areas where the cable is not buried. Gear loss could occur if fishermen snag the cable or science node during trawling.

Section 4.3: Cultural Resources

Section 4.3.1 has been revised to indicate that the EIR/EIS is intended to provide information for Section 106 consultation and to clarify that the potential for an intact prehistoric archaeological site to be located along this limited extent of cable route is relatively low.

The first paragraph of Section 4.3, page 4.3-1, has been revised as follows:

This section describes existing conditions within the project area, assesses Project impacts, and identifies mitigation measures that would avoid or reduce significant adverse impacts on cultural resources to a less than significant level. This section is intended to provide information required for review and consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA). The study area for cultural resources, also known as the Area of Potential Effect (A.P.E.) as defined in 36 CFR 800.16(d), includes all ground surfaces that would be affected at Moss Landing and all submerged surfaces along the proposed MARS offshore cable route.

The section sentence in the third paragraph on page 4.3-1, lines 22-24, has been modified as follows:

The closest wreck identified in the geophysical survey data is located approximately 850 feet (260 m) northeast of the route (Fugro 2004), well outside the proposed cable route.

The first paragraph in Section 4.3.2, Regulatory Setting, page 4.3-5, has been modified as follows:

Section 106 of the National Historic Preservation Act (NHPA), as amended, requires Federal agencies to take into account the effects of their undertakings on historic properties, i.e., cultural resources that are listed in or potentially listed in the National Register of Historic Places, and afford the State Advisory Council for Historic Preservation Office (ACHP) an opportunity to comment. By way of this EIR/EIS and two letters to the California State Historic Preservation Officer (SHPO), dated March 4, 2005, and May 4, 2005, MBNMS as the federal lead agency for the proposed Project, has initiated consultation under Section 106 of the NHPA as allowed under 36 CFR Part 800.8(c), Use of the NEPA process for section 106 purposes. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the ACHP Advisory Council on Historic Preservation...

Section 4.3.3, Significance Criteria, on page 4.3-6, has been modified as follows:

4.3.3 Eligibility and Significance Criteria

A cultural resources impact is considered significant if the Project adversely affects a resource that is:

- Listed in or eligible for listing in the California Register of Historical Resources,
- Otherwise considered a unique or important archaeological resource (including shipwrecks) under the CEQA, or
- Listed in or eligible for listing in the National Register of Historic Places (NRHP).

For the purposes of the NHPA analysis in this EIR/EIS, it has been assumed that all historical resources that may be impacted or affected are eligible for listing in the NRHP. In general, a project may have an adverse effect on a an eligible cultural resource if the resource would be...

The following text has been added to page 4.3-4, following line 20.

The potential for an intact prehistoric archaeological site to be located along this limited extent of cable route, however, is relatively low for the following reasons:

- The number of areas where buried relic channels, rivers, or stream features cross the cable route along this approximate 3.6-mile (2.25-km) extent substantially reduces the considered high prehistoric site sensitivity zones; and
- The potential for substantial buried prehistoric cultural sites containing deposits of food remains (i.e., animal bone, shellfish fragments, etc.) and subsistence remains (i.e., stone tool flakes, etc.) to remain intact is reduced due to the continuous wave action that would have acted against the integrity of the site deposits as sea level rose over time.
- The narrow width of the cable corridor substantially reduces the potential for encroaching within an unknown prehistoric archaeological resource.

Therefore, the probability of identifying an unknown, potentially significant archaeological resource along the approximate 3.6-mile (2.25-km) extent of cable route where sedimentation rates are low or don't exist is extremely low. However, this does not preclude the potential for significant impacts if an archaeological resource were discovered.

The following text has been added to page 4.3-10 as a new subsection after "No Project/Action Alternative":

4.3.7 Completion of Section 106 Consultation with the California SHPO

The MBNMS is waiting for the California SHPO to respond to its request for a letter of concurrence. Upon receiving the SHPO's response, MBNMS, as lead federal agency, will enter into any memorandum of agreement that may be necessary to resolve or mitigate potential adverse effects. Notification of the availability of any such memorandum of agreement is hereby given, by way of the Cultural Resources section of the EIR/EIS. Interested persons may contact MBNMS to obtain a copy or an update as to the status of the execution of any such memorandum of agreement.

Section 4.4: Geology and Soils

Tables 4.4-1 and 4.4-2 on pages 4.4-17 and 4.4-18 have been modified to indicate the Applicant would utilize only Single Armored (SA) and Single Armored Light (SAL) cable types during construction of the proposed Project.

1 **Table 4.4-1. Summary of Cable Route Subsurface Conditions (after Fugro 2004)**

Cable Location (Miles) (Km)	Percent Burial*	Water Depth (Feet) (Meters)	Expected Burial Depth	Slope/ Degree	Cable Type	Soil Type	Comments
0 to 18.6 0.0 to ±30	59.2	55 to 288 17 to 88	Full	< 5	SAL	Loose to medium dense sand or very soft to soft clay	Occurrences of dense/coarse sand.
±18.6 to 19.7 ±30 to 31.7	3.3	288 to 300 88 to 92	Partial	< 5	LWP SAL	Very soft clay over very dense sand	Locally no burial may be achieved because of rock outcrops.
19.7 to 25.2 31.7 to 40.6	17.5	300 to 1448 92 to 441	Limited / No burial	6-11	SPA SA	Very stiff to hard clay/rock	Extensive rock outcrops. San Gregorio Fault deformation zone. Some burial may be achieved up to 0.9 yards. Most difficult terrain of Project route.
25.2 to ±26.1 40.6 to ±42	2.7	1448 to 1556 441 to 475	Partial	6 to 8	LWP SA	Soft to very stiff clay, weakly cemented	Locally no burial may be achieved because of rock outcrops.
±26.1 to 31.7 ±42 to 51	17.6	1556 to 2923 475 to 891	Full	8 to <5	LWP SAL	Very soft to firm clay	Risk of plow sinkage.

2 *Percent of total cable route.

3

4 **Table 4.4-2. Descriptions of Cables (after Fugro 2004)**

Cable Type	Description
<u>Single Armor (SA)</u>	<u>Single-armor cable is suitable for rocky terrain and cable burial and provides protection from potential damage by fishing trawlers or anchors.</u>
Single Armor Light (SAL)	Used to a maximum depth of 1,500 meters, when armor is required, and in areas where good burial is predicted. Typically used on medium depth continental shelves, on rocky terrain, and in areas where trawling is a risk.
Special Application (SPA)	Used to a maximum design depth of 6,000 to 7,000 meters, when surface-laid on continental slopes and in deep-sea areas where extra abrasion protection might be needed.

Cable Type	Description
Light Weight Protected (LWP)	Typical installation is 1,000 to 4,500 meters, where rocky terrain may occur. Same application as for SPA cable but in more benign environments. Typical installation is from 1,500 to 8,000+ meters.

The sentence in the third paragraph on page 4.4-27, lines 23-24, has been edited for clarification:

The plow blade would penetrate the seafloor to a depth of just over 3 feet (0.9 m), displacing the sediment just ahead of the plow to create a trench ~~about 3 inches (7.6 cm)~~ up to 3 feet (0.9 m) wide depending on soil conditions.

The following text on page 4.4-27, line 33 has been edited for clarification:

... (2) create ~~only a 3-inch~~ a trench a maximum of 3 feet (0.9 m) wide depending on soil condition ~~trench~~;

Section 4.6: Marine Water and Sediment Quality and Oceanography

The Coastal Act and the National Marine Sanctuary Program have been added under Section 4.6.2 following the Rivers and Harbors Act on page 4.6-4.

Coastal Act

The California Coastal Act (PRC §30000-30900) is the principal planning and regulatory program for the coastal zone of California. The Act aims to preserve, protect, and enhance the California coastal zone as a distinct and valuable natural resource of vital and enduring interest to the people of California. Article 4 of the Coastal Act addresses the marine environment and the protection of marine resources, including water quality. Section 30231 states that the biological productivity and quality of coastal waters shall be maintained and, where feasible, restored by minimizing adverse effects, both to marine waters and fresh waters within the coastal zone. Section 30232 requires protection against spills of crude oil, gas, petroleum products, and hazardous substances, and requires effective containment and clean up of accidental spills.

Section 30600 of the Act requires any person wishing to perform development in the coastal zone to obtain a coastal development permit (CDP). The Coastal Commission retains CDP jurisdiction over tidelands, submerged lands, public trust lands, and lands within 100 feet of any wetland, estuary, or stream (PRC §30601(2)). Other areas of the project site located within the coastal zone are subject to the CDP authority of Monterey

County, pursuant to the County's certified LCP. Therefore, the project requires a CDP from the Coastal Commission for project activities located seaward of the mean high tide line and within 100 feet of a wetland, as well as a CDP from Monterey County for project activities located in the coastal zone landward of the mean high tide line. A CDP may only be approved if a development project is found to be consistent with the policies of the Coastal Act and the provisions of the certified LCP.

National Marine Sanctuary Program

Under the authority of the National Marine Sanctuaries Act (NMSA) (16 U.S.C. §§ 1431-1445c) the MBNMS was designated and is managed by the National Oceanic and Atmospheric Administration's (NOAA) National Marine Sanctuary Program (NSMP) as part of the National Marine Sanctuary System. The NMSP regulations include prohibitions on specific kinds of activities, descriptions of sanctuary boundaries, and a permitting system to allow certain types of activities to be conducted within sanctuaries that would otherwise be prohibited. In addition to general regulations, each national marine sanctuary has its own set of site-specific regulations (15 CFR Part 922). A permit would be required for this Project from the NMSP pursuant to Sections 922.133 and 922.48 of the Program regulations for activities in the Sanctuary that would otherwise be prohibited.

The following text has been added to page 4.6-12, beginning on line 8.

The tentatively proposed drilling depth of approximately 50 feet (15 meters) below the seafloor has been chosen to hinder the release of drilling mud to the surface while remaining above relatively unknown subterranean sediments or rock formations that would adversely affect HDD operations and that may occur at greater depths. The proposed drilling depth is also similar to other HDD operations completed along the California coastline at a borehole depth of 50 feet (15 meters) below the seafloor. Recent, successfully completed HDD projects along the California coastline include AT&T (China U.S. and Japan U.S.), Global West, and Tyco/Hermosa Beach. These projects resulted in very limited, small quantity frac-outs, e.g., less than one barrel, or 42 gallons, of released drilling mud. Intensive monitoring on these projects, similar to that for the proposed Project, resulted in immediate cessation of drilling, complete dispersal of the frac-out plume within several hours, and successful completion of the bore.

SECTION 5: OTHER REQUIRED CEQA/NEPA SECTIONS

Section 5.4: Growth-Inducing Impacts of the Proposed Project

The following text has been added to page 5-3 at the end of the discussion under “Growth-Inducing Impacts of the Proposed Project”:

Although the proposed cable Project would not contribute to population growth, it may provide increased opportunities for growth in offshore research in MBNMS. By establishing a source of electrical power and real-time communication to remote offshore areas, the Project may attract other types of research activities that can connect to the cabled system. One example is the proposed Boreholes Observatories project, which is planned to connect to the cable Project to utilize the power system. With a power source and real-time monitoring, the proposed cable could facilitate technical development of new types of research and education projects that were previously infeasible due to lack of infrastructure. It is not possible to identify the types or numbers of projects that could occur as a result of the proposed Project, but it is reasonable to anticipate some additional research activity. It should be noted that the greater Monterey Bay area is currently host to over 40 research institutions; a substantial amount of research activity already takes place in MBNMS.

SECTION 6: MITIGATION MONITORING PROGRAM

Table 6.5-2 impact area Commercial and Recreational Fisheries has been modified to indicate the Applicant’s commitment for addressing gear entanglement and recovery. It has also been modified to indicate that the Applicant shall develop and implement a Marine Mammal Monitoring Plan during construction of the proposed Project.

1 Table 6.5-2. Monitoring Program for Applicant-Proposed Protective Measures

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Commercial and Recreational Fisheries	<u>In the event fishing gear cannot be removed from the cable by surface vessels, the Applicant will utilize an ROV to remove the gear from the cable. If all attempts to remove the gear fail, the gear would be left in place but rendered incapable of harvesting marine resources.</u>	<u>Sea route.</u>	<u>Notify MBNMS if cable snag and gear entanglement.</u>	<u>Verify that gear has been removed from cable and fishermen compensated for lost gear.</u>	<u>CSLC/ MBNMS</u>	<u>After cable installation.</u>
Commercial and Recreational Fisheries	In areas where cable burial is not possible, additional cable armoring <u>consisting of single armor light cable sheathing</u> will be used and fishers will be notified of locations of exposed cables.	Sea route.	Review plans for cable armoring prior to installation.	Verify that additional armoring is used in all locations where cable is exposed.	CSLC/ MBNMS	Before, during, and after cable installation.

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Marine and Near-Coastal Biological Resources	<u>Develop and implement a Marine Mammal Monitoring Plan that will be utilized during cable installation.</u>	<u>Sea route.</u>	<u>Confirm that the protocols prescribed in the approved Marine Mammal Monitoring Plan are followed during cable installation.</u>	<u>Verify that the protocols are understood by the marine mammal monitors and crew and that the protocols serve to avoid collisions and other direct effects on marine mammals in the area.</u>	<u>CSLC/MBNMS</u>	<u>During cable installation.</u>
Marine Vessel Transportation	<u>The Applicant will coordinate cable laying activities with the U.S. Coast Guard regarding publication of a notice in the U.S. Coast Guard's Local Notice to Mariners.</u>	<u>Sea route.</u>	<u>Notify U.S. Coast Guard regarding cable laying activities.</u>	<u>Verify that Notice to Mariners has been issued.</u>	<u>CSLC/MBNMS</u>	<u>Before, during, and after cable installation.</u>